

REMARKS

Amendments

5 In the specification, page 9 has been amended to provide explicit counterparts
for

(a) the requirement of a number of claims that the side chain crystalline
(SCC) polymer is present in amount such that it thickens the oil, and

(b) the requirement of a number of claims that the SCC polymer is present in
10 amount at least 3%.

In the claims,

(a) Claim 17 has been amended to remove the requirement that the SCC
polymer is present in amount at least 3% by weight;

15 (b) Claim 21 has been amended to remove the requirement that the SCC
polymer is present in amount such that it thickens the oil; and

(c) Claims 28-39 have been added; these new claims are dependent on one
of the independent claims specifying that the SCC polymer is present in amount
such that it thickens the oil, or in amount at least 3% by weight, and each of the
20 new claims specifies that the SCC polymer is present in amount 3 to 10% or 3 to
7%.

Thus, even if the Examiner, contrary to the submissions of the Applicant, maintains the
present objection under 35 U.S.C. 132 and rejections under 35 U.S.C. 112, amended
claims 17, 21 and 28-39 are clearly not subject to that objection and those rejections.

25 Amended claims 17 and 21 are also clearly distinguished from the Mueller reference.
Claim 17 is directed to a water-in-oil emulsion, whereas the compositions in Mueller are
free from water. Claim 21 is limited to the oils named therein, none of which belongs to
the class of oils to which Mueller is limited.

The Objection under 35 U.S.C. 132.

Applicant respectfully traverses the objection under 35 U.S.C. 132, for the reasons set out in detail below in connection with the rejection of claims 2, 7-10, 12-14, and 21-26 under 35 U.S.C. 112. Similarly, the reasons set out in detail below in connection with the rejection of claims 5, 9, 17-20 and 27 under 35 U.S.C. 112 are applicable to any potential objection under 35 U.S.C. 132 arising from the amendment of the paragraph beginning on page 9, line 12, to provide specific basis for amounts greater than 3%

The Rejections under 35 U.S.C. 112

Applicants respectfully traverse

(1) the rejection of claims 2, 7-10, 12-14 and 21-26 under 35 U.S.C. 112, first paragraph, as "containing subject matter which was not described in the specification in such a way as to convey to one skilled in the relevant art that the inventor, at the time the application was filed, had possession of the claimed invention", because "there is no mention in the original specification of the SCC polymer being ' present in amount such that it thickens oil'... only numerical examples citing 3, 5, 7 and 10% by weight "being present;

(2) the rejection of claims 2, 7-10, 12-14 and 21-26 under 35 U.S.C. 112, first paragraph, as "containing subject matter which was not described in the specification in such a way as to convey to one skilled in the art to which it pertains, or with which it is most nearly connected, to make and/or use the invention, because "there is no showing in the specification to instruct one of ordinary skill in the art about the minimum amount of SCC polymer which is necessary to thicken the claimed oils;

(3) the rejection of claims 5, 9, 17-20 and 27 under 35 U.S.C. 112, first paragraph, as "containing subject matter which was not described in the specification in such a way as to enable one skilled in the relevant art that the inventor, at the time the application was filed, had possession of the claimed

invention, because "there is no mention in the original specification or the original claims of 'at least 3% by weight' of an SCC polymer... only the 3-10% by weight range (being) mentioned on page 9, lines 12-14, of the original specification; and

(4) the rejection of claims 5, 9, 17-20 and 27 under 35 U.S.C. 112, first paragraph, because the specification, "while being enabling for 3-10% by weight of side chain crystalline polymer, does not reasonably provide enablement for 3-100% by weight of side chain crystalline polymer "and does not "enable any person skilled in the art to which it pertains or with which it is most nearly connected, to make and use the invention commensurate in scope with these claims";

insofar as those rejections are applicable to the amended claims, for the reasons set up below.

1. The Rejection of Claims 2, 7-10, 12-14 and 21-26 for Lack of Written Description

Each of claims 2, 7-10 and 12-14 requires, directly or indirectly, that the SCC polymer" is present in amount such that it thickens the oil". Claim 21, and claims 22-26 dependent thereon, as examined, had the same requirement, but no longer contain that requirement in view of the amendment made to Claim 21.

The stated basis for the rejection of these claims for lack of written description is:
There is no mention in the original specification of the SCC polymer being 'present in amount such that it thickens oil'. Only numerical examples citing 3, 5, 7 and 10% by weight can be found.

Page 2, lines 11-17, of the specification as filed, reads:

I have discovered, in accordance with the present invention, that oil-containing compositions can be thickened with polymers which contain long chain alkyl groups in side chains but which contain no, or relatively few, acid groups as specified in U.S. Patent No. 5,736,125 or acid salt groups as specified in U.S. Patent No. 5,318 995. Furthermore I have been able to obtain improved

results through the use of such polymers. The polymers which are useful in the present invention are crystalline polymers, preferably side chain crystalline (SCC) polymers which...

5 Consistent with this initial statement of the invention, the remainder of the specification constantly refers to the fact that the purpose and result of adding the crystalline polymers to the oils is to produce a thickened oil composition. Reference may be made, for example to the following passages.

the use of such polymers as thickening agents (page 3, lines 18-19),
10 *the polymers used as thickeners in the present invention* (page 5, line 15),
the thickening polymer (page 8, lines 23 and 30),
the polymeric thickener (page 5, line 13, page 9, lines 12, 18 and 25),
a thickened oil composition (Claim 1, line 1).

These generalized references to the use of the SCC polymers as thickening agents,
15 and to the production of thickened oil compositions, inherently disclose that the SCC polymer is used in an amount sufficient to thicken the oil. While the precise words "is present in amount of such that it thickens the oil" are not used, Applicant submits that there cannot be the slightest doubt that those words do no more than express an inherent disclosure of the application as filed.

20

The Office Action states, in connection with this rejection,

Only numerical examples citing 3, 5, 7 and 10% can be found

It is true that the only **specific** amounts mentioned in the specification are 3, 5, 7 and 10%. But there is nothing in the specification to suggest that these are the only amounts
25 that can be used in accordance with the invention. On the contrary, as noted above, the generalized references to the use of the SCC polymers as thickening agents, and to the production of thickened oil compositions, inherently disclose the use of any amount of the SCC polymer that will result in thickening of the oil.

Furthermore, the passage in the specification which refers to the explicit amounts of 3, 5, 7 and 10%, namely Page 9, lines 12-14, of the specification as filed, reads (emphasis added):

*The amount of the polymeric thickener **preferably** used varies with the application. It is **usually** unnecessary to use more than 10% of the total composition, and smaller amounts **such as** 3 to 7%, for example about 5%, are often effective.*

This passage, through its use of the words "preferably", "usually" and "such as", clearly teaches that the amounts in question are not mandatory amounts, and thus confirm the overall teaching of the specification that the SCC polymer should be used in an amount sufficient to thicken the oil.

2. The Rejection of Claims 2, 7-10, 12-14 and 21-26 for Lack of Enablement.

Claims 2, 7-10, 12-14 and 21-26 have been rejected for lack of enablement. The stated basis for this ground of rejection is:

There is no showing in the specification to instruct one of ordinary skill in the art about the minimum amount of side chain crystalline polymer, which is necessary to thicken the claimed oils.

The specification as filed contains, on page 9, lines 12-14, an indication of the amounts of the SCC polymer which are preferably used to thicken the oil, and provides specific examples of thickened oils. The thickening of oils by the addition of suitable additives is a well-known technology, as evidenced by the numerous prior art documents which are of record in this application. For example, U.S. Patent No. 5,736,125 (Morawsky), which is incorporated by reference in the application as filed (see page 1, lines 10-13) states in column 3, lines 19-21

In the compositions, the amount of thickening copolymer... is present in an amount sufficient to thicken the composition to the desired thickness.

Those skilled in the art will have no difficulty, therefore, having regard to their own knowledge, the disclosure of this application, and routine experimentation, in

determining the amounts of SCC polymer to be used for thickening oils. Applicant asserts, therefore, that the specification contains enablement commensurate in scope with the protection sought by the claims. It is well-settled law that under such circumstances, a rejection of lack of enablement must be withdrawn unless the

5 Examiner substantiates the rejection by reason or evidence. For example, the CCPA, in *in re Budnick*, 190 USPQ 422, observed

Where an applicant has asserted that the specification contains enablement commensurate in scope of the protection sought by the claims, but the Examiner is of the opinion that the disclosure is not enabling, he has the burden of
10 *substantiating his doubts concerning enablement with reason or evidence.*

In the present case, the Examiner has not substantiated his doubts in anyway. He has merely **asserted** that the specification is not enabling. It is submitted, therefore, that the rejection should be withdrawn.

15
3. The Rejection of Claims 5, 9, 17-20 and 27 for Lack of Written Description

Each of claims 5, 9, 20 and 27 requires, directly or indirectly, that the composition contains at least 3% by weight of the SCC polymer. Claim 17, and claims 18-19
20 dependent thereon, as examined, had the same requirement, but no longer contain that requirement in view of the amendment made to Claim 17.

The stated basis for the rejection of these claims for lack of written description is:
There is no mention in the original specification or the original claims of "at least
25 *3% by weight" on an SCC polymer. Only the 3-10% by weight range is mentioned on page 9, lines 12-14 of the original specification.*

Page 9, lines 12-14, of the specification as filed, reads (emphasis added):
*The amount of the polymeric thickener **preferably** used varies with the*
30 *application. It is **usually** unnecessary to use more than 10% of the total*

*composition, and smaller amounts **such as** 3 to 7%, for example about 5%, are often effective.*

This passage, through its use of the words "preferably", "usually" and "such as", clearly teaches that the amounts in question are preferred, not mandatory, amounts.

5 Furthermore, as discussed in detail above, the overall teaching of the specification is that the SCC polymer should be used in an amount sufficient to thicken the oil. The quoted passage provides explicit basis for the use of 3%, and explicitly discloses the use of "more than 10%". It is submitted, therefore, that this passage, read in the context of the specification as a whole, clearly conveys to one skilled in the relevant art that the
10 inventor, at the time the application was filed, clearly understood (and disclosed) the possibility of using "at least 3% by weight" of the SCC polymer.

4. The Rejection of Claims 5, 9, 17-20 and 27 for Lack of Enablement

15 Each of claims 5, 9, 20 and 27 requires, directly or indirectly, that the composition contains at least 3% by weight of the SCC polymer. Claim 17, and claims 18-19 dependent thereon, as examined, had the same requirement, but no longer contain that requirement in view of the amendment made to Claim 17.

20 The stated basis for the rejection of these claims for lack of enablement is:
The specification, while being enabling for 3-10% by weight of SCC polymer, does not reasonably provide enablement for 3-100% by weight of the SCC polymer.

The specification as filed contains, on page 9, lines 12-14, an indication of the
25 amounts of the SCC polymer which are preferably used to thicken the oil, and provides specific examples of thickened oils. The thickening of oils by the addition of suitable additives is a well-known technology, as evidenced by the numerous prior art documents which are of record in this application. For example, U.S. Patent No. 5,736,125 (Morawsky), which is incorporated by reference in the application as filed
30 (see page 1, lines 10-13) states in column 3, lines 19-21

In the compositions, the amount of thickening copolymer... is present in an amount sufficient to thicken the composition to the desired thickness.

Those skilled in the art will have no difficulty, therefore, having regard to their own knowledge, the disclosure of this application, and routine experimentation, in

5 determining the amounts of SCC polymer to be used for thickening oils. Applicant asserts, therefore, that the specification contains enablement commensurate in scope with the protection sought by the claims. It is well-settled law that under such circumstances, a rejection of lack of enablement must be withdrawn unless the Examiner substantiates the rejection by reason or evidence. For example, the CCPA, in
10 *in re Budnick*, 190 USPQ 422, observed

Where an applicant has asserted that the specification contains enablement commensurate in scope of the protection sought by the claims, but the Examiner is of the opinion that the disclosure is not enabling, he has the burden of substantiating his doubts concerning enablement with reason or evidence.

15 In the present case, the Examiner has not substantiated his doubts in anyway. He has merely **asserted** that the specification is not enabling. It is submitted, therefore, that the rejection should be withdrawn.

20 The Rejections under 35 U.S.C. 102 and 35 U.S.C. 103

Applicants respectfully traverse

(1) the rejection of claims 2, 5, 7-14 and 17-27 under 35 U.S.C. 102 as anticipated by, or under 35 U.S.C. 103 as obvious over, Mueller (U.S. Patent No.
25 5,281,329), and

(2) the rejection of claims 21-26 under 35 U.S.C. 103 as obvious over Mueller,

insofar as those rejections are applicable to the amended claims, for the following reasons.

30

The Office Action states

Anticipating the removal of the new matter, the rejections of Paper #16 are maintained in their entirety. Furthermore, since Mueller is using the SCC polymers in petroleum oil fractions, their use would be obvious in any oily organic liquid. Not using solvents is also obvious since their effect on the environment is harmful.

According to Applicant's records, Paper #16 is the Office Action mailed February 6, 2002, and Paper #19 is the Office Action mailed April 25, 2002. The only rejection in Paper #16 under 35 U.S.C. 102/103 is a rejection of claims 2, 7, 8, 10 and 12-14 over Mueller; all the other claims were allowed or stated to be allowable if rewritten in independent form. In Paper #19, claims 2, 7-10, 12-14 and 21-26 were rejected under 35 U.S.C. 102/103 over Mueller; Claims 5, 11 and 17-20 were not rejected under 35 U.S.C. 102/103 and indeed were allowed or stated to be allowable if rewritten in independent form. It is not clear to Applicant whether the present Office Action correctly reflects the Examiner's intention to refer only to Paper #16, or whether the reference should have been to Paper #19, or to both Paper #16 and Paper #19. It is also unclear how the rejections of Paper #16 and/or #19 can be "maintained" in relation to claims which were found to be allowed or allowable in the relevant Office Action(s). In the interests of speedy prosecution, Applicant has set out below a detailed commentary on the relationship between the present claims and the Mueller reference, and on all the earlier rejections under 35 U.S.C. 102 and 103, insofar as those rejections can be understood. Much of this commentary repeats remarks made in the Replies to Papers #16 and #19.

As noted above, and in the response to the previous Office Action, Applicant believes that no new matter has been added to this application. The specification and claims are not, therefore, being amended in the way apparently anticipated by the Examiner. As noted in the Reply to the previous Office Action, the rejections of Paper #16 appear to have been formulated, at least in part, on the assumption that the limitation that the SCC polymer is "present in amounts such that it thickens the oil" should be ignored. Similarly, it appears that the Examiner is continuing to reject claims on the basis that this limitation, and the limitation that the SCC polymer is present in

amount at least 3%, should both be ignored. Applicant remains of the opinion that the patentability of the claims under 35 U.S.C. 102/103 must be determined on the basis of the claims as they are written, not on the basis of notionally amended claims.

5 A. The Rejection in Paper #16 of claims 2,7, 8, 10 and 12-14.

The rejection reads as follows.

10 *Mueller et al. disclose SCC polymers and oil in claims 1-5. Adding the polymers at elevated temperature is shown in column 4, lines 25-34. See also from column 2, line 15 to column 3, line 14. All properties are inherent in the composition. Applicant's claims are not novel. In the alternative it would have been obvious to one having ordinary skill in the art, at the time the invention was made, to dissolve polymers without the use of solvents, in order to eliminate polluting the atmosphere.*

15 Mueller does not relate to the treatment of oils in general. It is concerned only with the treatment of an oil which (a) is a crude oil, vacuum gas oil or residual oil and (b) contains contain substantial quantities of paraffins which dissolve in the oil at higher temperatures, but crystallize out on cooling. These paraffins lower or prevent the ability
20 of the oils to flow at low temperatures. In Mueller's Examples, the oils have pour points of 6-30 °C. (the pour point is the temperature below which the oil will not flow). Mueller's objective is to reduce the pour point of the oil. He does this by dissolving into the oil an additive which is a mixture of a relatively low melting SCC polymer and a relatively high melting SCC polymer. The quantity of the additive is very small. A range
25 of 1-10,000 ppm (0.001-1%) is given, with a preferred range of 0.005-0.2%. In the Examples, the amounts used are 4-1,000 ppm (0.004-0.1%). According to Mueller, the additive is "incorporated in the growing paraffin crystals and in this way hinders the further growth of the crystals and the formation of extended crystal conglomerates" (column 1, lines 26-30). Mueller does not disclose any compositions containing water.

A comparison of Mueller and the present application makes it clear that Applicants use substantially greater quantities of the SCC polymer than Mueller, and that Applicants achieve a result which is the opposite of that achieved by Mueller. For example, the minimum amount of SCC polymer explicitly disclosed in this application is 3%, i.e. 3 times the maximum disclosed by Mueller and 30 times the maximum amount used in any of Mueller's specific examples. Page 9, lines 12-14, notes that it is "usually unnecessary" to use more than 10 % of the SCC polymer and that " smaller amounts such as 3 to 7%, for example about 5%, are often effective". Applicants' Examples use 5 % of the SCC polymer.

There is nothing in Mueller to suggest that there is any reason to add the mixture of SCC polymers to any oil that does not need to have its pour point reduced.

From this summary of Mueller, it will be apparent that Mueller's objective is the very reverse of Applicants' objective. Mueller takes an oil that is thick and makes it fluid. Applicants take an oil that is fluid and make it thick.

Some of the claims in this application include compositions which comprise (i) a paraffin-containing oil as specified by Mueller which requires, for some reason, additional thickening, and (ii) a mixture of SCC polymers as specified by Mueller. However, none of the claims include anything disclosed or suggested by Mueller. Thus, each of Applicants' claims is directed to a thickened oil composition and contains at least one of the following requirements

- 1) the SCC polymer is used "in amount such that it thickens the oil";
- 2) the SCC polymer is used in amount at least 3% by weight,
- 3) the composition is an water-in-oil emulsion, and
- 4) the oil is an oil as specified in Claim 21.

Each of these limitations clearly excludes everything disclosed by Mueller. Furthermore, each of these limitations clearly excludes everything suggested by Mueller, since it cannot be obvious to modify Mueller in a way that is directly contrary to Mueller's instructions, i.e. so as to produce a **thickened** oil composition and using an amount of

the SCC polymer far in excess of anything disclosed by Mueller, and/or producing a water-in-oil emulsion, and/or using an oil which is outside the scope of the oils used by Mueller.

5 B. The Rejections in Paper #19

1. The Rejections in Paper #19 of Claims 2, 7-10 and 12-14 under 35 U.S.C. 102 and 103.

10 Paragraph 11 of Paper #19 sets out the following bases for these rejections.
 (a) *Since the minimum amount of SCC polymer necessary to thicken the oil is not known, the limitation is meaningless... indefinite, not enabling and new matter.*

15 For the reasons set out in detail above, Applicant believes that the limitation that the SCC polymer is present in amount such that it thickens the oil is properly included in the rejected claims, and must, therefore, be given effect when considering any rejection under 35 U.S.C. 102 or 103.

 (b) *Mueller does not use the SCC polymer as a thinner, but as a pour point depressant.*

20 It is of course correct that Mueller uses the SCC polymer as a pour point depressant. However, it is also true that Mueller consistently refers to the SCC polymers as "flow improvers", and that in Mueller's disclosure, the effect of the SCC polymer is to make the oil more easily pourable (i.e. "thinner"). This effect is demonstrated specifically in Examples 8-13 of Mueller. For example, in
25 Example 8, the oil without any additive cannot be poured (i.e. is very thick) at all temperatures below 30 °C, whereas, with the additives, the oil is pourable at lower temperatures. In view of these facts, Applicant does not understand why the Examiner apparently thinks that it is to both possible and relevant to distinguish between use of the SCC polymer as a pour point depressant and as a
30 thinner. In any event, whatever the precise words used, the fact remains that Mueller's objective is totally different from Applicant's objective. Mueller takes an

oil that is thick and makes it fluid, whereas Applicant takes an oil that is fluid and makes it thick.

(c) *What happens to the viscosity when SCC polymer is added in an amount of less than 1%, is unknown.*

5 Applicant does not understand whether this comment is meant to apply to the Mueller reference or to the claimed invention, or its significance in either case.

(d) *The only thing we know from applicant's specification that the effective thickening amount can be between 3 and 10%.*

10 Applicant is uncertain what is meant by this statement. It is true that it is known from Applicant's specification that the effective thickening amount **can be** between 3 and 10%. But it is not correct to say that it is known from Applicant's specification that the effective thickening amount **must** be between 3 and 10%. On the contrary, as pointed out above, Applicant's specification teaches one of ordinary skill in the art that the SCC polymer can be used in any amount that is effective, and in particular that in the effective thickening amount can be more
15 than 10% or less than 3%.

(e) *Since applicant is trying to cover the 1-3 % range with their new limitation, the 3-10 % range limitation is meaningless.*

20 The limitation that the SCC polymer is present "in amount such that it thickens the oil" means what it says. The Examiner is incorrect in characterizing it as "trying to cover the 1-3% range".

2. The Rejection in Paper #19 of Claims 21-26 under 35 U.S.C. 103.

25 Paragraph 14 of Paper #19 sets out the following basis for this rejection.

Mueller is useful with petroleum oil fractions. See column 3, line 60. Since mineral oils and vaseline oils are petroleum oil fractions, the use of the pour point depressant of Mueller in Applicant's claimed compositions, would be clearly obvious...

30 The present Office Action adds the following to this basis for rejection.

Furthermore, since Mueller is using the SCC polymers in petroleum oil fractions, their use would be obvious in any oily organic liquid.

It is true that column 3, line 60, of Mueller refers to "petroleum oil fractions".

5 However, the quoted phrase is **only part of** a sentence which runs from column 3, line 60 to column 4, line 2. The complete sentence makes it clear that Mueller is not concerned with **all** petroleum oils and petroleum oil fractions, but only with crude oils, vacuum gas oils having a boiling point of 320-500°C, and residual oils which distill above 350°C. Furthermore, the remainder of Mueller makes it clear that Mueller's
10 starting materials are always oils whose "ability... to flow is lowered or entirely prevented" by the "paraffins contained therein" (column 1, lines 14-19), and that the effect of adding the SCC polymer to them is to improve their flow characteristics. It is, therefore, incorrect to conclude that the oils referred to in Applicant's claim 21 are disclosed in Mueller. Still more is it incorrect to say that it is obvious to use SCC
15 polymers in compositions in which their presence produces an effect (thickening) diametrically opposed to that desired by Mueller.

The Examiner has asserted that it would have been obvious to use Mueller's SCC polymers in "any oily organic liquid". As previously noted, Mueller is concerned
20 only to produce a very specific effect in a very specific class of oils. The Examiner has not advanced any rationale in support of his assertion that it would have been obvious to extend Mueller's teaching beyond that very specific class of oils. It is submitted that, in the absence of any such rationale, it cannot be correct to say that it would have been obvious to use Miller's SCC polymers in any oily organic liquid.

25

As previously noted, it appears to Applicant that many of the Examiner's rejections under 35 U.S.C. 102 and 35 U.S.C. 103 are based on a construction of the claims which ignores the limitation that the SCC polymer is present in amount such that it thickens the oil. Applicant submits that since the claims in question do in fact contain
30 that limitation, the determination of their patentability under 35 U.S.C. 102 and 103 must proceed on the basis that the limitation is indeed present, independently of any

questions that may arise under 35 U.S.C. 112. In summary, Applicant submits that the rejections under 35 U.S.C. 102 and 103 should be withdrawn, because

(1) Mueller nowhere discloses a composition in which the presence of the SCC polymer results in thickening of the oil;

(2) Mueller's sole objective is to provide compositions in which the presence of the SCC polymer increases the pourability of the oil, ie. makes the oil thinner;

(3) Mueller is concerned only with compositions which are free of water; and

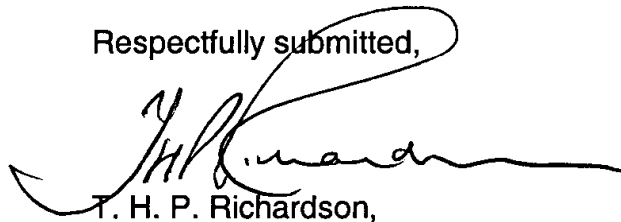
(4) Mueller is concerned only with oils which are clearly different from those specified in Claim 21;

and because it cannot be obvious to modify Mueller in a way that is directly contrary to Mueller's instructions, i.e. so as to **decrease** the pourability of the oil (as taught by Applicant) rather than to **increase** the pourability of the oil (as taught by Mueller).

CONCLUSION

It is believed that this application is now in condition for allowance, and such action at an early date is earnestly requested. If, however, there are any outstanding issues that could usefully be discussed by telephone, the Examiner is asked to call the undersigned.

Respectfully submitted,



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Registration No.28,805,

Tel No. 650 854 630





Docket No. 12969

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Applicant: Bitler

Group Art Unit: 1714

5 Serial No.: 09/398,377

Examiner: Szekely, P.

Filing Date: 09/17/99

Title: Polymeric Thickeners for Oil-Containing Compositions

**VERSION OF AMENDED PARAGRAPH OF THE SPECIFICATION WITH
MARKINGS TO SHOW CHANGES REQUESTED BY THE ACCOMPANYING
10 REPLY, FILED IN ACCORDANCE WITH 37 CFR 1.121(b)(1) AND (2).**

This paper sets out a version of the paragraph rewritten as requested
by the accompanying Reply, marked up to show all the changes relative to the original
version of the paragraph. In this version, the changes are shown by brackets (for
15 deleted matter) and underlining (for added matter).

The paragraph beginning on page 9, line 12 (with the words "The amount of the
polymeric thickener") and ending on page 9, line 14 (with the words "..... often
effective." has been rewritten to incorporate the changes shown below

20 — — [The amount of the polymeric thickener] The polymeric thickener should
be used in an amount sufficient to thicken the oil, for example at least 3%. The amount
preferably used varies with the application. It is usually unnecessary to use more than
10% of the total composition, and smaller amounts such as 3 to 7%, for example about
5%, are often effective. — —

25 Respectfully submitted,

T. H. P. Richardson, Registration No. 28,805,

Tel No. 650 854 630

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Sep 27



Docket No. 12969

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Applicant: Bitler

Group Art Unit: 1714

Serial No.: 09/398,377

Examiner: Szekely, P.

Filing Date: 09/17/99

Title: Polymeric Thickeners for Oil-Containing Compositions

**VERSION OF AMENDED CLAIMS WITH MARKINGS TO SHOW CHANGES
REQUESTED BY THE ACCOMPANYING REPLY, FILED IN ACCORDANCE
WITH 37 CFR 1.121(c)(1)(ii).**

This paper sets out a version of each of the claims rewritten as requested by the accompanying Reply (but not the claims which were unchanged or which were canceled or added by the Reply), marked up to show all the changes relative to the previous version of the claim. In this version,

- (i) a parenthetical expression (which is the same as the parenthetical expression in the clean version of claims set out in the Reply) follows the claim number and indicates the status of the claim as amended, and
- (ii) the changes are shown by brackets (for deleted matter) and underlining (for added matter).

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Spr 27

17. (Amended) A thickened oil composition which is a water-in-oil emulsion and which comprises

(1) an oil, and

(2) dispersed in the oil, [at least 3% by weight of] a side chain crystalline (SCC) polymer which

(a) has a crystalline melting point, T_p , of 20 to 80 °C, and an onset of melting temperature, T_o , such that $T_p - T_o$ is less than 10 °C;

(b) is soluble in the oil at temperatures above T_p ,

(c) has been dispersed in the oil by a process which comprises

(i) dissolving the polymer in the oil at a temperature above T_p ,
and

(ii) cooling the solution to crystallize the polymer in the oil,

(d) contains at least 80% by weight of repeating units containing a side chain comprising a linear polymethylene radical or a linear substantially perfluorinated polymethylene radical containing 6 to 50 carbon atoms, and

(e) is substantially free of functional groups;

the composition being at a temperature below T_p .

21. (Amended) A thickened oil composition comprising

(1) an oil selected from the group consisting of mineral oils; vaseline oils; hydrogenated polyisobutylene; triglycerides; purcellin oil; isopropyl myristate; butyl myristate; cetyl myristate; isopropyl palmitate; butyl palmitate; ethyl-2-hexyl palmitate; isopropyl stearate; butyl stearate; octyl hexadecyl stearate; isocetyl stearate; decyl oleate; hexyl laurate; propylene glycol dicaprylate, diisopropyl adipate; animal oils; silicone oils; oleyl alcohol; linoleyl alcohol; linolenyl alcohol; isostearyl alcohol; octyl dodecanol; esters derived from lanolic acid; and acetyl glycerides.; and

(2) dispersed in the oil, a polymer which

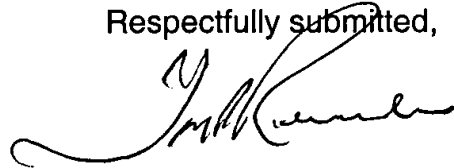
(a) has a crystalline melting point, T_p , and an onset of melting temperature, T_o , such that $T_p - T_o$ is less than $T_p^{0.7}$;

(b) is soluble in the oil at temperatures above T_p ,

- (c) has been dispersed in the oil by a process which comprises (i) dissolving the polymer in the oil at a temperature above T_p , and (ii) cooling the solution to crystallize the polymer in the oil, and
- (d) is a side chain crystalline (SCC) polymer which is substantially free of functional groups, and which consists of
- (i) 50 to 100% by weight of units derived from at least one n-alkyl acrylate or methacrylate in which the n-alkyl group contains 12 to 50 carbon atoms, and
 - (ii) less than 50% by weight of units derived from at least one alkyl acrylate or methacrylate in which the alkyl group is not an n-alkyl group containing 12 to 50 carbon atoms[, and
- (e) is present in amount such that it thickens the oil];

the composition being at a temperature below T_p .

Respectfully submitted,



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